

REMARKS

In the Office Action of August 13, 2003, the Examiner (1) acknowledged Applicants' election of claims 1-28; (2) withdrew claims 29-63 from further consideration as drawn to a non-elected species; (3) rejected claims 1, 4-6, 9, 12-15, 18-22 and 25-27 under 35 U.S.C. § 102(b) as anticipated by U.S. Patent No. 5,036,632 to Short, III et al.; (4) rejected claims 2, 3, 10, 11, 16, 17, 23, and 24 under 35 U.S.C. § 103(a) as being unpatentable over Short, III et al. as applied to claims 1, 4-6, 9, 12-15, 18-22 and 25-27 above, in view of U.S. Patent No. 5,678,307 to Farwell; (5) rejected claim 7 under 35 U.S.C. § 102(b) as anticipated by Short, III et al. or, in the alternative, under 35 U.S.C. §103(a) as obvious over Short, III et al., as applied to claims 1, 4-6, 9, 12-15, 18-22 and 25-27 above, and further in view of U.S. Patent No. 4,787,180 to Robinson et al.; and (6) rejected claims 8 and 28 under 35 U.S.C. 103(a) as being unpatentable over Short, III et al. as applied to claims 1, 4-6, 9, 12-15, 18-22 and 25-27 above, and further in view of U.S. Patent No. 6,241,113 to Mozley et al. With this amendment, Applicants have canceled claims 4 and 15 and amended independent claims 1, 9, and 14 to more clearly define the present invention. The subject matter of cancelled claims 4 and 15 has been incorporated into independent claims 1 and 14 respectively in order to more clearly define the present invention. To the extent that the Examiner's rejections apply to the amended claims, those rejections are respectfully traversed for the reasons set forth below.

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The Reference of Short, III et al. Does Not Anticipate Current Independent

Claims 1,9,14, and 18

In the Office Action, the Examiner rejected claims 1, 4-6, 9, 12-15, 18-22 and 25-27 as being anticipated by Short, III et al. Claims 1, 14, and 18 all recite a pressure relief device. The pressure relief devices of claims 1, 14, and 18 all include, *inter alia*, a substantially flat flange section having a plurality of openings and defining a plane. A domed section of the device is connected to the flange section and has a transitional line defining a change in the shape of the domed section. The transitional line is disposed outside of the plane defined by the flange section.

Short, III et al. does not teach or suggest a pressure relief device as recited in claims 1, 14, and 18. Short, III et al. discloses a rupture panel 12 which includes a flange portion 16, a series of intermittent slits 20, and an unslit side 24 forming a hinge for a hinged blow-out part 22. As seen in FIGS. 1-4, there is disclosed a transition section 18 connecting the flange portion 16 and the rest of the panel. With particular reference to the disclosure of column 3, lines 35-38, plan FIG. 3, and cross-section FIGS. 2 and 4, the device of Short, III et al. includes a transition line 18 *disposed within the same plane* as that of the flange portion 16. Thus, Short, III et al. does not teach or suggest a pressure relief device having a transitional line defining a change in the shape of the domed section where the transitional line is disposed outside of the plane defined by the flange section.

As described in the specification at pages 19-22, this feature provides increased support for a pressure relief device under a negative pressure differential.

For at least this reason, Short, III et al. does not teach or suggest a pressure relief device as described in claims 1, 14, and 18. Accordingly, Applicants respectfully request that the rejection of claims 1, 14, and 18, under 35 U.S.C. § 102(b) be withdrawn. In addition, Applicants request that the rejections of claims 2, 3, 5-8, 16, 17, and 19-28 also be withdrawn because these dependent claims include additional patentable features as well as the limitations of their respective independent claims.

The pressure relief device of current claim 9 recites, *inter alia*, a substantially flat flange section having a plurality of openings. A domed section of the device is connected to the flange section and has a transitional line defining a change in the shape of the domed section. A plurality of notches are disposed adjacent the transitional line, with each notch being configured to receive a support.

None of the cited references, alone or in combination, teach or suggest a pressure relief device including the combined features of claim 9 including a plurality of notches, each configured to receive a support. With reference to pages 31-32 of the specification, the notch and support feature provides additional support to the pressure relief device and may reduce manufacturing costs.

Accordingly, Applicants respectfully request that the rejection of claim 9 under 35 U.S.C. § 102(b) be withdrawn. In addition, Applicants request that the rejection of

claims 10-13 also be withdrawn because these dependent claims include additional patentable features as well as the limitations of their respective independent claims.

**The Reference of Farwell can not be Properly Combined With the Primary
Reference of Short, III et al. to Render the Current Claims Obvious**

In the Office Action, the Examiner also rejected claims 2, 3, 10, 11, 16, 17, 23, and 24 under 35 U.S.C. § 103(a) as being unpatentable over Short, III et al. in view of Farwell. The reference of Farwell does not teach or suggest the pressure relief devices recited in the rejected claims, nor can it make up for the deficiencies noted above regarding the primary reference of Short, III et al.

Farwell discloses an inverting, rupturable, pressure relieving apparatus as seen in FIGS. 1, 5, 7, 8, and 20-25. The device includes a rupture disk 16, a flange portion 22, and a protuberance 28 where the protuberant side faces an inlet supporting member 12. See col. 5, lines 5-10. With reference to FIGS. 5-8, there is disclosed a rupture disk 60 and a circular indentation 61 upon which fluid pressure is exerted in the direction of arrow 65 on the inlet side of the pressure relieving apparatus. The passages of col. 6, lines 40-44, set forth that the particular shape and size of disk 60 "determines the pressure at which the indentation 61 *inverts*" (emphasis added).

Conversely, the primary reference of Short, III et al. discloses a rupture panel where the shape, design, and proper operation of the overall system requires no controlled inversion of the disk when pressure is exerted on the inlet side of the pressure relieving apparatus. FIG. 5 and column 4, line 51 - column 5, line 24

disclose that no inversion of the rupture panel takes place when the predetermined rupture pressure is reached.

The reference of Farwell cannot be properly combined with the prior art teachings of Short, III et al. because of its disclosed "inverting" principle of operation and design. A *prima facie* case of obviousness may be rebutted by showing that the art in any material respect, teaches away from the claimed invention. Additionally, if the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims obvious. See MPEP 2143.01.

Accordingly, one having ordinary skill in the art would not be motivated to modify the shape of the forward acting rupture panel of Short, III et al. with the particular design aspects of the inverting, rupturable, pressure relieving apparatus of Farwell.

In addition to the references of Short, III et al. and Farwell, none of the cited references, alone or in combination, teach or suggest a pressure relief device including the combined features of the rejected claims. Reconsideration is requested.

In view of the foregoing amendments and remarks, Applicant respectfully requests reconsideration and reexamination of this application and the timely allowance of the pending claims.

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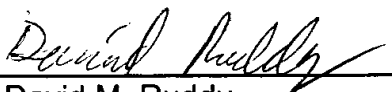
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Please grant any extensions of time required to enter this response and charge any additional required fees to our deposit account 06-0916.

Respectfully submitted,

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